

Re: New PC – everything supported by Fedora Core 3 ?

Source: <http://linux.derkeiler.com/Mailing-Lists/Fedora/2005-02/5467.html>

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To: Fedora List <fedora-list@redhat.com>

Date: Sun, 20 Feb 2005 11:23:15 -0500

On Sun, 2005-02-20 at 07:20, Markus Jais wrote:

- >
- > CPU: Intel Pentcion 3 GHz FC.-LGA4, Prescott
- > Board: Asus P5GD2 (Sound, G-LAN, IDE RAID, SATA RAID)
- > Memory: Kingston Value RAM DIMM 256MB DDR2-533
- > Graphic Card: Asus EN6600/TD 256MB, GeForce 6600
- > Disk: Western Digital Caviar SE WD2000JD (200 GB)
- > DVD-ROM Plextor PX 116A
- > DVD-Burner: Plextor PX-716A (16fach DVD Brenner, Bulk, Dual Layer)
- > ISDN Karte: AVM Fritz Card PCI 2.1
- > Monitor Iiyama E431S-W (DVI-D, Sound, 72 Hz)
- >
- > does anyone know if there are any problems with this
- > or is someone already
- > using these items successfully
- >
- > I want to use Fedora Core 3

I think you have a slightly different motherboard than the system I am in the process of setting up. I have the Asus P5GD2 Deluxe Motherboard which uses Intel Pentium LGA 775 type processors. I used an Intel Pentium 4 560J 3.6Ghz LGA 775 CPU.

I also selected the Plextor PX-716A DVD burner for this unit. I was able to boot from the FC3 iso disks and load FC3 using that drive just fine. I connected it to the black IDE connector on the front edge of the mother board. The only odd thing with this is that FC3 seems to have identified the drive a /dev/hda. It also built a /dev/dvd device which is a link to /dev/hda. /media/cdrecorder is the mount point used for this device. This was not really what I expected. However I have successfully used this drive to burn a RW CD just fine. I have not played any DVDs on it yet but I think I have the correct options in fstab now for that. Trying to get this working with mythtv but still

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have work to do on that.

I used the same brand of memory but installed four 512MB sticks. System recognized the memory just fine.

I ended up using a Mad Dog FX 5500 PCI based video card. One error I made was thinking this board had an AGP slot. It has a PCI 16 express slot for a video card. At some point I may track down a PCI 16 express video card but for now I am using one of the standard PCI slots for the video. Have not used PCI 16 express cards before.

With this combination the Nvidia drivers loaded and worked with very little trouble.

The biggest problem I had was with the on board ethernet controller. The board I have uses a Marvell 88E8053 10/100/1000Base-t chip set. FC3 out of the box does not recognize this NIC. I did find a driver that does work. Assuming you have the same on board NIC that I did you can get the correct driver from <http://www.sysconnect.com/sysconnect/support/driver/zip/linux> the file you want is Install-8_13.tar.

To build the driver you will need to setup a soft link to the header files of the particular version of your kernel as follows:

```
In -s /lib/modules/"insert your kernel version here"/build
/usr/src/linux
```

(replace the quoted portion with your kernel version found in /lib/modules)

Run the install.sh script for the driver and it will build just fine. You can then modprobe for it to test it. The next time you boot the interface will be found and you can configure it through that tool as well.

I have gotten very adept at starting the system in runlevel 3 so I can rebuild the ethernet drivers and NVIDIA drivers. :)

I did need to implement the fix for the udev problem in regards to the nvidia drivers. Once you have the nvidia drivers install do the following:

```
modprobe nvidia
cp -a /dev/nvidia* /etc/udev/devices
chown root.root /etc/udev/devices/nvidia*
```

This is from bugzilla 133900

This is needed so the nvidia drivers will load when you reboot the system.

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I am using only SATA type hard drives (four Maxtor 300GB drives). Apparently smartd does not work with SATA drives, or at least not with these SATA drives. For now I have just disabled smartd to prevent the failure message on reboot.

I should also note that my motherboard has two SATA controllers, each can support 4 SATA hard drives. The Silicon 3114R controller works out of the box and saw my hard drives. Currently have all four hard drives connected to the Silicon 3114R controller. Initially I had them split between the two controllers but the Intel SATA controller did not seem to see the drives. I have since found an option in the bios to configure that controller for a mode that may work. I have not tested that yet other than to change the bios setting.

Note: I am not using this in a raid configuration. My application for this box is not that critical (mythtv system), and IMHO using raid without a hot swap system is silly and wastes a lot of drive space. As it is now I have built a 1TB file system using LVM which appears to be working just fine.

Another issue I had was with the on board audio chip set. FC3 did not see it out of the box. I had to manually load the alsa-driver package. Even then the sound card detection utility does not see the audio device even though alsacnf does find it. However when I started up mythtv I get sound just fine. (please note I am far from an audiophile so the quality may not be there and I have not tried to use the multiple speaker outputs that are available, just the one output to some poor PC speakers.)

I have not tackled the on board wireless interface yet. First look however there does not seem to be much in the way of native support for the on board wireless chipset. It looks like another Marvell chipset. lspci -v gives me this for what I believe to be the wireless controller.

```
01:00.0 Ethernet controller: Marvell Technology Group Ltd.: Unknown device 1fa7 (rev 07)
```

```
Subsystem: ASUSTeK Computer Inc.: Unknown device 138f
Flags: bus master, 66Mhz, medium devsel, latency 64, IRQ 11
Memory at bfec0000 (32-bit, non-prefetchable) [size=64K]
Memory at bfe90000 (32-bit, non-prefetchable) [size=64K]
Capabilities: [40] Power Management version 2
```

I took a brief look at the Linuxant site to see if they had support for this chip set. So far I have not found anything definitive on their site saying they support this particular chip set. I am leaving this for later once I have mythtv fully functional.

I also installed a Hauppauge PVR-350 card in this box. I am working through some minor config issues with the remote control and the DVD support within mythtv. But I will hopefully have most of that sorted out in the next week.

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I did play with the hyperthreading support. Using the SMP kernel you essentially get two CPUs in the one processor. You can see that using the top command and pressing the 1 (one) key to show both CPU's stats. It is even more impressive when you run two copies of setiathome. Each one will use half your CPU resources which you can see via the system monitor tool.

Have not run any benchmarks at this point but I have to say the whole system feels much faster than anything else I have used.

Sorry for the long winded response. Had planned on doing a write up on this system at some point as I did not find many people using this particular motherboard. Still plan on doing that once I get the other parts of the system working such as the wireless support.

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You can't take damsel here now.

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